

We claim:

1. A medical implant or device at least partially fabricated from a metal alloy consisting essentially of

(a) 98.85 – 99.15 weight percent Niobium,

5 (b) 0.85 – 1.15 % weight percent Zirconium.

2. A medical implant or device according to claim 1 wherein said metal alloy consists essentially of

(a) 99.02 – 99.15 weight percent Niobium,

(b) 0.85 – 0.98 % weight percent Zirconium.

10 3. A medical implant or device according to claim 1 wherein said metal alloy consists essentially of

(a) 99.05 – 99.15 weight percent Niobium,

(b) 0.85 – 0.95 % weight percent Zirconium.

15 4. A medical device according to any one of claims 1 to 3, wherein the medical device is a minimal-invasive device, in particular a catheter or a guide wire.

5. A medical implant or device according to any one of the claims 1 to 3, wherein the medical implant is an intra-cavernous implant.

6. A medical implant or device according to claim 5, wherein the medical implant is an intravascular implant.

20 7. A medical implant according to claim 6, wherein the medical implant is a stent, a stent graft, a stent graft connector or a heart valve repair device.

8. A stent according to claim 7 which is composed of a single homogeneous, substantially non-decomposing tubing made from the metal alloy according of claim 1.

9. A stent according to claim 8 which is composed of a single homogeneous substantially non-decomposing sheet made from the metal alloy according of claim 1.
10. A medical implant or device according to any one of claims 1 - 3, wherein the surface of the metal alloy is passivated by oxidation or nitridization.
- 5 11. A medical implant or device according to any one of claims 1 - 3, wherein the surface of the metal alloy is coated with iridium oxide by vapor deposition.
12. A medical implant or device according to any one of claims 1 - 3, wherein the surface of the metal alloy is electropolished, mechanically polished, micro blasted, roughened or sintered.
- 10 13. A medical implant or device according to any one of claims 1 - 3, wherein the surface of the metal alloy is coated with a polymer, a blend of polymers, a metal, a blend of metals, a ceramic and/or biomolecules, in particular peptides, proteins, lipids, carbohydrates and/or nucleic acids.
- 15 14. A medical implant or device according to any one of claims 1 - 3, wherein the surface of the metal alloy is coated with stem cells and/or a bioactive substance, in particular drugs, antibiotics, growth factors, anti-inflammatory agents and/or anti-thrombogenic agents.